

FAX TRANSMISSION		RECEIVED CENTRAL FAX CENTER AUG 28 2006
DATE:		
PTO IDENTIFIER: Application Number 10/570,643-Conf. #1224 Patent Number		
Inventor: Dirk Zierer et al.		
MESSAGE TO: US Patent and Trademark Office		
FAX NUMBER: (571) 273-8300		
FROM: CONNOLLY BOVE LODGE & HUTZ LLP Ashley I. Pezzner		
PHONE: (302) 658-9141		
Attorney Dkt. #: 05587-00400-US		
PAGES (Including Cover Sheet): 10		
CONTENTS:	Transmittal Of Translation Of The International Preliminary Report On Patentability (1 page) Translation Of The International Preliminary Report On Patentability (7 pages) Certificate of Transmission (1 page)	
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CENTRAL FAX CENTER

NO. 2881 P. 2

AUG 28 2006

Application No. (if known): 10/570,643

Attorney Docket No.: 05587-00400-US

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Transmittal Of Translation Of The International Preliminary Report On
Patentability
Translation Of The International Preliminary Report On Patentability (7
pages)

484258_1

Application No.: 10/570,643

Docket No.: 05587-00400-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Dirk Zierer et al.

RECEIVED
CENTRAL FAX CENTER
AUG 28 2006

Application No.: 10/570,643

Confirmation No.: 1224

Filed: March 30, 2006

Art Unit: N/A

For: POLYOXYMETHYLENE MULTI-BLOCK
COPOLYMERS, THEIR PRODUCTION AND
USE

Examiner: Not Yet Assigned

**TRANSMITTAL OF TRANSLATION OF THE INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY**


Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits herewith the English-language translation of the International Preliminary Report On Patentability ("IPRP") which issued in the corresponding international application. The international Examiner has deemed claims 1-30 to possess novelty and industrial application. Each reference cited in the IPRP has been cited by Applicant in an Information Disclosure Statement filed with the United States Patent and Trademark Office.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 05587-00400-US.

Respectfully submitted,

By 
Ashley I. Pezzner

Registration No.: 35,646
CONNOLLY BOVE LODGE & HUTZ LLP
1007 North Orange Street
P.O. Box 2207
Wilmington, Delaware 19899
(302) 658-9141
Attorney for Applicant

484257_1

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

TICONA GMBH
Intellectual Property EU
R 300
Professor Staudinger Strasse
65451 Kelsterbach
ALLEMAGNE

Date of mailing (day/month/year)
20 July 2006 (20.07.2006)

Applicant's or agent's file reference
2003/G008

IMPORTANT NOTIFICATION

International application No.
PCT/EP2004/009810

International filing date (day/month/year)
03 September 2004 (03.09.2004)

Applicant

TICONA GMBH et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, GZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Ellen Moyse

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 2003/G008	FOR FURTHER ACTION		See item 4 below
International application No. PCT/EP2004/009810	International filing date (day/month/year) 03 September 2004 (03.09.2004)	Priority date (day/month/year) 05 September 2003 (05.09.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant TICONA GMBH			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
- In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Date of issuance of this report 10 July 2006 (10.07.2006)
	Authorized officer Ellen Moyse e-mail: pt05@wipo.int

Form PCT/IB/373 (January 2004)

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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

Translation

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)		See Form PCT/ISA/210
Applicant's or agent's file reference 2003/G008		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/EP2004/009810	International filing date (day/month/year) 03.09.2004	Priority date (day/month/year) 05.09.2003
International Patent Classification (IPC) or both national classification and IPC C08G2/08, C08G2/38, C08G65/00, C08L59/00		
Applicant TICONA GMBH		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

Form PCT/ISA/237 (cover sheet) (January 2004)

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/009810

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/009810

Box No. II	Priority
1.	<input checked="" type="checkbox"/> The following document has not yet been furnished: <div style="margin-left: 20px;"><input checked="" type="checkbox"/> copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)). <input type="checkbox"/> translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).</div> <p>Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.</p>
2.	<input type="checkbox"/> This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3.	Additional observations, if necessary:

Form PCT/ISA/237 (Box No. II) (January 2004)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/009810

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-30	YES
	Claims	NO
Inventive step (IS)	Claims	YES
	Claims See supplemental sheet, point 2.	NO
Industrial applicability (IA)	Claims 1-30	YES
	Claims	NO

2. Citations and explanations:

Reference is made to the following documents:

D1: US-A-3 642 942 (CASTNER CLAIRE ET AL) 15 February 1972
(1972-02-15)

D2: US-A-4 072 704 (LANGDON WILLIAM K) 7 February 1978
(1978-02-07)

D3: US-A-4 535 127 (HAMADA MINORU ET AL) 13 August 1985
(1985-08-13)

D4: EP-A-0 429 672 (ASAHI CHEMICAL IND) 5 June 1991
(1991-06-05)

(For precise positions in the text, see search report)

1. Novelty

POM block copolymers having the coupling groups claimed between the segments were not found in the search; the subject matter of the claims is therefore novel.

~~2. Inventive step~~

2.1. According to the present application, POM segments are bound via particular coupling groups (e.g. carbonate groups) to various further polymer segments; the coupling groups are introduced by means of particular bifunctional reagents.

2.2. D1 describes POM block copolymers in which, according to the same principle, the POM segments are bound via bifunctional coupling reagents to a further polymer segment.

However, in contrast to the application, other couplers are used in D1 and other coupling groups are thus introduced.

2.3. The object to be achieved relative to D1 was then to provide further coupling groups between POM and other polymer segments.

Form PCT/ISA/237 (Box No. V) (January 2004)

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/009810

Box No. V

Reasoned statement under Rule 43bis1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

2.4. According to D2, block copolymers comprising various polyether segments are bridged, for example, by means of carbonate groups using dialkyl carbonate ($R-O-C(=O)-OR$) as bifunctional coupling reagent. However, other polyether units are reacted as POM.

For a person skilled in the art who has set himself the object of finding alternative couplers to D1, it would have been obvious to try the abovementioned carbonate reagents in order to prepare, for example, POM polyether copolymers (cf. examples in the application).

The fact that linking POM block copolymers via various functional groups (carboxyl, carboxylic anhydride, etc.) (cf. D3, D4) makes the approach even more obvious.